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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/752,845      | 12/28/2000  | David R. Milward     | 25748.4             | 1023             |

27683 7590 05/07/2004

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| EXAMINER |
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SCHLAIFER, JONATHAN D

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2178

DATE MAILED: 05/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/752,845

Applicant(s)

MILWARD ET AL.

Examiner

Jonathan D. Schlaifer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to application 09/752,845 filed on 12/28/2000, with prior art filed on 10/1/2001.
2. Claims 1-12 are pending in the case. Claims 1 and 12 are independent claims.

### ***Specification***

3. The description portion of this application contains a computer program listing consisting of more than three hundred (300) lines. In accordance with 37 CFR 1.96(c), a computer program listing printout of more than three hundred lines must be submitted as a computer program listing appendix on compact disc conforming to the standards set forth in 37 CFR 1.96(c)(2) and must be appropriately referenced in the specification (see 37 CFR 1.77(b)(4)). Accordingly, applicant is required to cancel the computer program listing appearing in the specification on pages \*\*\*, file a computer program listing appendix on compact disc in compliance with 37 CFR 1.96(c) and insert an appropriate reference to the newly added computer program listing appendix on compact disc at the beginning of the specification.

### ***Claim Objections***

4. Claim 12 is written as being dependent on claim 1 even though it is, in fact, an independent claim. The contents of claim 1 should be incorporated into claim 12 in order to reflect this independence.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-11 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 describes a method that could be performed by a human being using pencil and paper and lacks a concrete technological basis, and is henceforth not patentable as it presently stands. This situation could be rectified by explicitly assigning the method as being performed by a computer or other technological device. Claims 2-11 depend upon claim 1 and are similarly rejected. For purposes of examination, the method of claim 1 and its dependent claims will be assumed to be performed by a computer.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 4-6, 8-9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Stuckey (USPN 5,721,938—filing date 6/7/1995).**
7. **Regarding independent claim 1**, Stuckey discloses a method of analyzing and reformatting a passage of text (see Abstract, lines 1-20, the program analyzes and manipulates text grammatically), comprising the steps of: a) identifying words in the passage of text representing different parts of speech (see Abstract, lines 1-3, Nouns and Verbs are sorted out); b) grouping at least some of the identified words into discrete units representing discrete linguistic phrases (see Abstract, lines 10-20, the text is analyzed into word patterns), so as to generate a partially analyzed text passage; c) identifying logically

significant conjunctions within the said partially analyzed text passage (see col. 17, lines 45-50, conjunction situations are identified), ; and d) reformatting the passage of text that has been analyzed so as to reveal the logical structure thereof (col. 17, lines 32-55, marks are placed to reveal syntactic function of words).

8. **Regarding dependent claim 4**, Stuckey discloses a method in which the steps of grouping at least some of the identified words into discrete units comprises grouping at least some of the identified words into a first set of intermediate phrases on the basis of a first predetermined finite set of linguistic rules (see Abstract, lines 1-5, the program combines words into patterns based on predetermined finite linguistic rules).
9. **Regarding dependent claim 5**, Stuckey discloses a method in which the first set of intermediate phrases includes a phrase selected from the list comprising a noun phrase and a verb phrase (see Abstract, lines 1-5, the program combines words by Nounness and Verbness).
10. **Regarding dependent claim 6**, Stuckey discloses a method in which the step of grouping at least some of the identified words into discrete united further comprises grouping at least some of the intermediate phrases into a second set of final phrases on the basis of a second predetermined finite set of linguistic rules, such that a selected one of the final phrases in the said second set is made up of a plurality of intermediate phrases from the said first set (see col. 8, lines 25-50, different word-patterns are made from smaller word-groups).
11. **Regarding dependent claim 8**, Stuckey discloses a method in which the step of identifying logically significant conjunctions comprises the step of searching for

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predetermined phrase patterns from within the said partially analyzed text passage (see col. 17, lines 50-55, the program scans for specific phrases).

12. **Regarding dependent claim 9**, Stuckey discloses a method further comprising, after the said step of identifying logically significant conjunctions in the partially analyzed text passage, the steps of: identifying a grammatically appropriate location for inserting of a second part of a two part conjunction within the passage of text to be analyzed (col. 17, lines 40-50, the program would detect this when it finds impossible situations), when such second part of the said conjunction is not already present; and automatically inserting at the identified location, an indicator into the reformatted passage of text when the text is displayed, the said indicator indicating that the said second part of the conjunction should be present there (col. 17, lines 40-50, the program marks the text in accordance with parts of speech, changing the label to reflect what should be there).
13. **Regarding independent claim 12**, it is a computer readable medium with encoded instructions for carrying out the method of claim 1, and is rejected under similar rationale.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuckey, further in view of Zaenen et al. (USPN 5,642,522—filing date 2/28/1995), hereinafter Zaenen.**
15. **Regarding dependent claim 2,** Stuckey fails to disclose a method in which the step of identifying words in the passage of text representing different parts of speech comprises employing a statistical analysis upon the words in the passage of text so as to determine a most likely part of speech category for each word. However, Zaenen discloses determining parts of speech by statistical techniques because these are effective and feasible. It would have been obvious to one of ordinary skill in the art at the time of the invention to determine parts of speech in the context of Stuckey in the statistical manner of Zaenen because these techniques are standard techniques which draw on established, simple, mathematical techniques that effective and feasible.
16. **Regarding dependent claim 3,** Stuckey fails to disclose a method in which the step of performing a statistical analysis comprises performing Hidden Markov Modelling upon the passage of text to be analyzed. However, Zaenen suggests the use of a Hidden Markov Model because it is elegant, effective, and feasible. It would have been obvious to one of ordinary skill in the art at the time of the invention to determine parts of speech in the context of Stuckey in the Hidden Markov manner of Zaenen because these techniques are simple, standard techniques which draw on established, simple, mathematical techniques that effective and feasible.

**17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stuckey, further in view of Wilcox et al. (USPN 5,889,523—filing date 11/25/1997), hereinafter Wilcox.**

**18. Regarding dependent claim 7,** Stuckey fails to disclose a method in which the step of grouping the intermediate phrases into the second set of final phrases is carried out through finite state analysis. However, in col. 13, lines 57-67 and col. 14, lines 1-3 of Wilcox, finite state analysis is used to group graphic objects because it is a simple and effective means of grouping. This is analogous art because objects are being grouped using finite state analysis. It would have been obvious to one of ordinary skill in the art at the time of the invention to group using finite state analysis in the manner of Wilcox in the context of Stuckey because it is a simple, standard, established, clear, and effective means of grouping.

**19. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuckey, further in view of Dionne (USPN 6,137,906—filing date 6/27/1997).**

**20. Regarding dependent claim 10,** Stuckey fails to disclose a method in which the passage of text is stored in electronic form on a digital computer, the method further comprising, prior to the step a) of identifying words representing different parts of speech, the steps of: receiving the passage of text to be analyzed in electronic form; and tokenizing the received passage of text to identify separate sentences and paragraphs. However, Dionne discloses receiving the passage of text to be analyzed in electronic form (see Abstract, lines 1-5, receiving the text as an image file on a computer); and tokenizing the received passage of text to identify separate sentences and paragraphs (see col. 6, lines 50-65, the



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text is tokenized to identify sentences and paragraphs). The advantage of doing these steps is that information processing for the document is facilitated by use of the electronic form and decomposition of the document. It would have been obvious to one of ordinary skill in the art at the time of the invention to put the document in electronic form and tokenizing the received text into sentences and paragraphs because information processing for the document is facilitated by use of the electronic form and decomposition of the document in that processing in electronic form is easier and faster and decomposition allows processing of separate elements of the document.

21. **Regarding dependent claim 11**, Stuckey discloses a method further comprising, after the step c) of identifying logically significant conjunctions, the step of: inserting formatting information into the passage of text in electronic form so that, when displayed, the logically significant conjunctions are distinguishable from the remaining text (see col. 17, lines 30-35, the user can identify syntactic functions).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

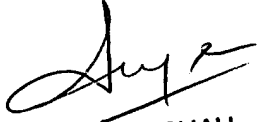
USPN 5,146,405 (filing date 2/5/1988)—Church

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Schlaifer whose telephone number is 703-305-9777. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



SANJIV SHAH  
PRIMARY EXAMINER